

## WHAT IS CLAIMED IS:

- 1                   1.     A method for quantifying risk of fraud associated with a  
2     purchasing card transaction, the method comprising:  
3                   obtaining a charge-back history associated with a consumer involved  
4     in the purchasing card transaction; and  
5                   determining a risk score based on the charge-back history.
- 1                   2.     The method of claim 1 wherein the step of obtaining a charge-  
2     back history includes obtaining a reason code for each charge-back included in the  
3     charge-back history.
- 1                   3.     The method of claim 2 further comprising weighting each  
2     charge-back included in the charge-back history based on the corresponding reason  
3     code.
- 1                   4.     The method of claim 1 further comprising determining how  
2     each charge-back included in the charge-back history is associated with the  
3     purchasing card transaction, and weighting each charge-back based on the  
4     corresponding association with the purchasing card transaction.
- 1                   5.     The method of claim 1 further comprising obtaining additional  
2     charge-back history associated with a machine identification number of a machine  
3     involved in the purchasing card transaction, and wherein the step of determining a  
4     risk score includes determining the risk score based on the additional charge-back  
5     history.
- 1                   6.     The method of claim 1 wherein the step of determining a risk  
2     score includes comparing the charge-back history to predetermined ranges of  
3     charge-backs.
- 1                   7.     The method of claim 1 wherein the step of determining a risk  
   score is performed using a linear risk model.

1                   8.     The method of claim 1 wherein the step of determining a risk  
2     score is performed using a regression risk model.

1                   9.     The method of claim 1 wherein the step of determining a risk  
2     score is performed using a decision tree risk model.

1                   10.    The method of claim 1 wherein the step of determining a risk  
2     score is performed using a neural network risk model.

1                   11.    The method of claim 1 wherein the step of determining a risk  
2     score includes determining the risk score based on a plurality of purchasing card  
3     transaction characteristics.

1                   12.    A method for quantifying risk of fraud associated with a  
2     purchasing card transaction, the method comprising:  
3                   obtaining a charge-back history associated with a consumer involved  
4     in the purchasing card transaction, wherein the charge-back history includes charge-  
5     backs associated with a particular purchasing card account of the consumer, and a  
6     reason code for each charge-back;  
7                   weighting each charge-back based on the corresponding reason code;  
8     and  
9                   determining a risk score based on the weighted charge-backs.

1                   13.    A system for quantifying risk of fraud associated with a  
2     purchasing card transaction, the system comprising:  
3                   an authorization source for obtaining a charge-back history associated with  
4     a consumer involved in the purchasing card transaction, the authorization source  
5     including a risk model for determining a risk score based on the charge-back  
   history.

1                   14.    The system of claim 13 wherein the authorization source  
2     includes a database for storing a reason code for each charge-back included in the  
3     charge-back history, and a processor in communication with the database and

4 including the risk model, wherein the risk model includes instructions for  
5 determining the risk score based on the reason codes.

1 15. The system of claim 14 wherein the risk model includes  
2 instructions for weighting each charge-back included in the charge-back history  
3 based on the corresponding reason code.

1 16. The system of claim 13 wherein the risk model includes  
2 instructions for determining how each charge-back included in the charge-back  
3 history is associated with the purchasing card transaction, and instructions for  
4 weighting each charge-back based on the corresponding association with the  
5 purchasing card transaction.

1 17. The system of claim 13 wherein the risk model includes  
2 instructions for comparing the charge-back history to predetermined ranges of  
3 charge-backs in order to determine the risk score.

1 18. The system of claim 13 wherein the risk model comprises a  
2 linear risk model.

1 19. The system of claim 13 wherein the risk model comprises a  
2 regression risk model.

1 20. The system of claim 13 wherein the risk model comprises a  
2 decision tree risk model.

1 21. The system of claim 13 wherein the risk model comprises a  
2 neural network risk model.

1 22. A computer system for quantifying risk of fraud associated  
2 with a purchasing card transaction, the computer system comprising:  
3 a database for storing a charge-back history associated with a  
4 consumer involved in the purchasing card transaction; and

5                   a processor in communication with the database, the processor  
6   including a risk model for determining a risk score based on the charge-back  
7   history.